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Mr. Robert L. Morgan, P. E.
State Engineer
1636 West North Temple
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Subject: Proposed Utah Lake distribution plan

Dear Bob:

We have reviewed the draft distribution plan for the Utah Lake drainage, including the major sub-basins. We realize that despite the many hours of effort invested in the plan so far, the plan is preliminary at this point, and many of the finer details have not yet been worked out. Recognizing this, our comments are provided with the intent of identifying those issues needing additional clarification, and identifying what we consider to be benefits of the plan and also potentially major adverse impacts on hydrology, water quality, and affected biotic communities.

What the Plan Does

As we understand the proposed plan, the following objectives would be addressed:

1. Protection of prior rights would be assured.
2. Water would be distributed in accordance with court decrees.
3. Storage rights would be defined, based on priority, with "system storage" established to allow for exchanges to occur. System storage may be subject to call to satisfy downstream senior rights.
4. A reregulation pool ("buffer") would be created in Jordanelle Reservoir, to allow the river commissioner to more accurately distribute direct flow rights on Provo River.
5. Proposed irrigation duties for pending adjudications are presented.

The Division of Wildlife Resources supports these objectives of the plan. We believe that more controlled distribution of water, especially on the Provo River, is sorely needed, and affected stream fisheries could benefit from more flow being left in the river, and elimination of some of the "dry dams".

Adverse Consequences of the Plan

Examination of the data provided in the draft plan reveals potentially major adverse impacts to water quality, wetlands, aquatic, avian and terrestrial wildlife would result. Although it is probably not appropriate that the distribution plan be held accountable for those impacts, e.g. other actions such as water right exchanges, changes of use, etc. have contributed to the circumstances necessitating this comprehensive plan, we feel the issues should be disclosed at this time. Specifically, the greatest concern is the effect this plan will have on Utah Lake. The model predicts that Utah Lake, on average, will be approximately four (4) feet lower than historical. This would have the following effects which need to be investigated:

1. Water Quality- The water quality of Utah Lake will be severely impaired. Salinity will markedly increase. Aquatic biota, vegetation, and limnological characteristics could be adversely affected. Turbidity will likely increase, because of an even shallower water body more prone to wind action. Dissolved oxygen concentrations could drop low enough,

especially in the shallow(er) bays, to cause fish kills under winter ice cover. The June sucker, a federally listed endangered species, could be adversely affected.

2. Wetlands- The shallow bays of Utah Lake, especially Goshen Bay and Provo Bay, are extremely valuable wetland areas. These areas are critically important to thousands of migratory shorebirds and waterfowl in the Pacific flyway, providing nesting, rearing, and migrating stop-over habitat throughout most of the year. Based on a cursory review of bathymetry data, we estimate that more than 3,000 surface acres (mostly wetland) would be lost from Goshen Bay with a change in water elevation from 4490 feet msl to 4485 feet msl. Provo Bay is a "perched" system, because of the narrow outlet and relatively high inflow (at present). With lower inflow, and less frequent periods of deeper water, invasion by cattail (a low-value plant species for wildlife) will likely choke off much of the bay. Peripheral wetlands around the lake shoreline may be impacted, although a more detailed investigation of contours and local hydrologic conditions would be required to determine this.

The Utah Division of Wildlife Resources owns and manages Powell Slough Waterfowl Management Area, near the shores of Utah Lake in Orem. The slough generally stores water above the Utah Lake level, although in times of high water, the difference in elevation is much less. We are uncertain what effect the lower (with the plan) lake levels might have on local hydrologic conditions, and how the ecology of Powell Slough might be altered. The many wildlife species which use the area could be adversely affected.

3. Fisheries- Fish populations in Utah Lake, especially the endangered June sucker, could be adversely impacted by the plan, as a result of water quality changes already described, from increased water temperatures, from reduced habitat area, and a variety of other interrelated factors. Impacts to game fish species in the lake, including walleye, channel catfish, and white bass would likely be similarly adverse.

Other Concerns with the Plan

1. The draft plan requires that all exchanges of water take place concurrently, or at least within the same season. We can recognize distinct advantages, at least in some situations, of allowing the replacement water to be delivered off-season, usually during the non-irrigation season. As an example, the Deer Creek-Strawberry Exchange enacted several years ago provides an opportunity to increase winter streamflows in the Sixth Water/Diamond Fork/Spanish Fork river drainage, as water is delivered from Strawberry Reservoir to Utah Lake. The higher (e.g. 70 to 90 cfs) flows provide better winter habitat than would natural winter flows (about 15 cfs) in the enlarged stream channels created by excessive irrigation flows during summer. Allowing the exchange to take place during the winter, although not without some administrative problems, can be beneficial from a fishery and wildlife standpoint, and we recommend the plan allow greater flexibility in this regard.

2. We believe the plan must consider imported water in order to be truly comprehensive and provide for all the needs of various users in the basin. Once water is brought into the Utah Lake basin (or its subbasins), it should come under the administration of this plan, via the appropriate river commissioner and/or Utah Division of Water Rights. We expect that virtually all future water development is going to occur through exchanges involving imported water, and this facet cannot be ignored.

We appreciate the opportunity to review and comment on this proposed plan. As indicated previously, many of the comments presented here are not exclusive to the draft distribution plan. This Division is deeply involved in assessing the various components of the Central Utah Project which in particular will strongly influence the future of water resource management in the Utah Lake basin. We appreciate the exceptional efforts of your staff in preparing this draft plan and look forward to working closely with your office as many of these issues come to resolution in the years ahead.

Sincerely,

Timothy H.Provan
Director

cc: Central Utah Water Conservancy District
U.S. Fish and Wildlife Service
Utah Division of Water Quality